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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/828,575	04/21/2004	Kong Eng Cheng	APP 1566	5284

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EXAMINER
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ALI, MOHAMMAD

ART UNIT	PAPER NUMBER
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2166

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/08/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	Application No. 10/828,575	Applicant(s) CHENG ET AL.	
	Examiner Mohammad Ali	Art Unit 2166	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 21 April 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. This communication is in response to the application filed 4/21/04.

The application has been examined and claims 1-19 are pending in this Office Action.

#### ***Claim Rejections - 35 USC § 101***

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-19 are rejected under 35 U.S.C. 101 because

In claims 1 and 7 the last step "if a matching reference database record is found" it's gives a result. But if not found what will happend ? Clarification or another step is needed.

Claim 16, the invention does not fall within at least one of the four categories of patent eligible subject matter recited in 35 U.S.C. 101 (process, machine, manufacture, or composition of matter); or the claimed invention is directed to a judicial exception to 35 U.S.C. 101 (i.e., an abstract idea, natural phenomenon, or law of nature) and is not directed to a practical application of such judicial exception (e.g., because the claim does not require any physical transformation and the invention as claimed does not produce a useful, concrete, and tangible result); or the claimed invention would impermissibly cover every substantial practical application of, and thereby preempt all use of, an abstract idea, natural phenomenon, or law of nature.

The claimed invention as a whole must be useful and accomplish a practical

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application. That is, it must produce a "useful, concrete and tangible result." State Street, 149 F.3d at \*1373-74, 47 USPQ2d at 1601-02. The purpose of this requirement is to limit patent protection to inventions that possess a certain level of "real world" value, as opposed to subject matter that represents nothing more than an idea or concept, or is simply a starting point for future investigation or research (Brenner v. Manson, 383 U.S. 519, 528-36, 148 USPQ 689, 693-96 (1966); In re Fisher, 421 F.3d 1365, 76 USPQ2d 1225 (Fed. Cir. 2005); In re Ziegler, 992 F.2d 1197, 1200-03, 26 USPQ2d 1600, 1603-06 (Fed. Cir. 1993)).

**Adding a processor/memory would overcome the rejections.**

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. Claims 1-7 and 10-15 are rejected under 35 U.S.C. 102(e) as being anticipated

by Moon et al. ('Moon' hereinafter), USPGPUB 2003/0177118.

With respect to claim 1,

Moon teaches a method for querying any of a plurality of target databases for one or more target database records that match an input data query (see para. 0047), said method comprising the steps of:

querying a reference database for a reference database record that matches the input data (see para. 0107, 0111, Moon) and

if a matching reference database record is found, querying any of the plurality of target databases (para. 079, 069, Moon) for the one or more target database records that correspond to the reference database record (paras. 079, 069, Moon).

As to claim 2,

Moon teaches a generating a request to enter a new input data query if a reference database record is not found (paras. 0045, 0086, Moon).

As to claim 3,

Moon teaches wherein said step of querying a reference database comprises querying the reference database for reference database records that possibly match the input data (see para. 0107, 0111, Moon), the method further comprising the steps of:

if a matching reference database record is not found but one or more possibly matching reference database records are found, determining if a possibly

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matching record can be considered a near-matching record to the input data (see para. 0010, Moon), and

if a near-matching record is determined, querying any of the plurality of target databases for the one or more target database records that correspond to the near-matching record (see para. 0107, Moon).

As to claim 4,

Moon teaches if a matching reference database record is not found and one or more possibly matching reference database records are found but a near-matching record is not determined (see paras. 0010, Moon), generating a selection request to choose from among the one or more possibly matching records a record that corresponds to the input data, if a possibly matching record corresponds to the input data and is chosen, querying any of the plurality of target databases for the one or more target database records that correspond to the chosen record (see paras. 0107, 0111, Moon).

As to claim 5,

Moon teaches wherein prior to querying the reference database, the reference database is selected from among a plurality of reference databases based on an input data type (see paras. 0007, 0008, Moon).

As to claim 6,

Moon teaches wherein the step of querying any of the plurality of target databases further comprises, if a matching reference database record is found, querying for records that possibly correspond to the reference database

record (see para. 0074, Moon).

With respect to claim 7,

Moon teaches method for querying one or more target databases for one or more target database records (see para. 0047), said method comprising the steps of:

receiving an input data query, based on an input data type, selecting from among a plurality of reference databases one or more reference databases (see para. 00785), if a single reference database is selected:

querying the single reference database for a reference database record that matches the input data (see para. 0043), and

if a matching reference database record is found, using the matching reference database record for subsequent queries of the one or more target databases for the one or more target database records (see para. 0008).

As to claim 10,

Moon teaches wherein said using step comprises the steps of removing information from the matching reference database record and subsequently using any remaining information for the subsequent queries of the one or more target databases for the one or more target database records (see para. 0103).

As to claim 11,

Moon teaches wherein the matching reference database record comprises additional information beyond the input data query and wherein said using step comprises (see para. 0111 the steps of:

separating the information of the matching reference database record to create a plurality of forms, and using the plurality of forms for the subsequent queries of the one or more target databases for the one or more target database records (see para. 0103).

As to claim 12,

Moon teaches wherein if multiple reference databases are selected: sequentially querying the multiple reference databases until a reference database record that matches the input data is found (see para. 0069), and if a matching reference database record is found, using the matching reference database record for subsequent queries of one or more target databases for one or more target database records (see para. 0071).

As to claim 13,

Moon teaches wherein if multiple reference databases are selected: querying the multiple reference databases in parallel for all reference database records that match the input data, and if one or more matching reference database records are found: selecting one of the matching reference database records, and using the matching reference database record for subsequent queries of one or more target databases for one or more target database records (see paras. 0069, 0071).

As to claim 14,

Moon teaches wherein said selecting step is based on whether there is a quorum among the one or more matching reference database records (see paras. 0005, 0071).



As to claim 15,

Moon teaches wherein if multiple reference databases are selected: querying the multiple reference databases for all reference database records that match the input data, and if one or more matching reference database records are found, using each matching reference database record for subsequent queries of one or more target databases for one or more target database records (see paras. 0069, 0071).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 8-9 and 16-19 are rejected under 35 U.S.C. 103(a) as being

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unpatentable over Moon et al. ('Moon' hereinafter), USPGPUB 2003/0177118 as applied to claims 1-7, and 10-15 in view of Joseph M. Bugajski ('Bugajski' hereinafter), USP, 5,592,667 .

As to claim 8,

Moon teaches wherein said using step comprises the steps of converting the matching reference database record to a single canonical form and using the canonical form for querying the one or more target databases for the one or more target database records (see para. 0080).

Moon does not explicitly indicate claimed canonical form.

Bugajski teaches claimed canonical form (This process in the left table (Fig. 2), which has left child entries in canonically ordered form. These canonically ordered values are then reduced to differences in the right-hand table, see col. 10, lines 51-54, Bugajski.

It would have been obvious to one ordinary skill in the data processing art at the time of the present invention to combine the teachings of the cited references because canonical form of Bugajski's teaching would have allowed Moon's system for substantial improvements to optimize the speed of comparing the new input to the associations already learned as suggested by Bugajski at col. 7, lines 11-12.

As to claim 9,

Moon teaches wherein said using step comprises the steps of converting the matching reference database record to one or more canonical forms wherein each canonical form corresponds to one of the one or more target databases and

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using each canonical form for querying its corresponding target database for the one or more target database records (see para. 0091).

Moon does not explicitly indicate claimed canonical form.

Bugajski teaches claimed canonical form (This process in the left table (Fig. 2), which has left child entries in canonically ordered form. These canonically ordered values are then reduced to differences in the right-hand table, see col. 10, lines 51-54, Bugajski.

It would have been obvious to one ordinary skill in the data processing art at the time of the present invention to combine the teachings of the cited references because canonical form of Bugajski's teaching would have allowed Moon's system for substantial improvements to optimize the speed of comparing the new input to the associations already learned as suggested by Bugajski at col. 7, lines 11-12.

With respect to claim 16,

Moon teaches a system for querying one or more target databases for one or more target database records (see para. 0047), said system comprising:

a set of reference-based mapping rules for matching input data queries to reference database records, a set of target-based query rules for matching reference database records to target database records (see para. 0007), and

a validation and mapping process that given an input data query, uses the set of reference-based mapping rules to match a record in a selected reference database to the given input data (see para. 0006), and

uses the target-based query rules to match the one or more target database records in the one or more target databases to the matched reference database record or to a canonical form of the matched reference database record (see paras. 0007, 0008).

Moon does not explicitly indicate claimed canonical form.

Bugajski teaches claimed canonical form (This process in the left table (Fig. 2), which has left child entries in canonically ordered form. These canonically ordered values are then reduced to differences in the right-hand table, see col. 10, lines 51-54, Bugajski.

It would have been obvious to one ordinary skill in the data processing art at the time of the present invention to combine the teachings of the cited references because canonical form of Bugajski's teaching would have allowed Moon's system for substantial improvements to optimize the speed of comparing the new input to the associations already learned as suggested by Bugajski at col. 7, lines 11-12.

As to claim 17,

Moon teaches a reference database list specifying relations between input data types and reference databases and wherein the validation and mapping process uses the reference database list to determine the selected reference database (see para. 0008).

As to claim 18,

Moon teaches a list of transformation rules for converting reference database records to canonical forms (see para. 0069).

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As to claim 19,

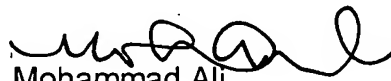
Moon teaches wherein the list of transformation rules are also for converting reference database records to customized canonical forms that correspond to the target databases (see para. 0073).

***Contact Information***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mohammad Ali whose telephone number is (571) 272-4105. The examiner can normally be reached on Monday-Thursday (7:30 am-6:00 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain T. Alam can be reached on (571) 272-3978. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Mohammad Ali  
Primary Examiner  
Art Unit 2166

MA  
December 29, 2006